REMARKS

Claim Rejections - 35 USC § 112

Claims 1-10 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that Claims 1, 5, 9, and 10 use the term efficiency without defining the term either in the specification or in the claims, and that at least four types of efficiency is described in the literature. In addition, the Examiner states that the eye is more sensitive to certain colors such as green and white as compared to blue or red and thus white light can be described as more efficient than blue or red light since the eye is more sensitive to white light. The remaining claims are rejected as dependent on rejected independent claim 1 or 5. This rejection is respectfully traversed.

Claims 1 and 5 are directed towards the use of organic electroluminescent displays having colored light emitting elements and white light emitting elements, where the white light emitting elements have light emitting efficiencies greater than at least one of the colored light emitting elements. Such light emitting efficiency measure is further explained in the specification at page 3, lines 19-25 as being the amount of light output produced for a given amount of current, such as may be reported in the units of candelas/ampere. Thus, contrary to the Examiner's assertions, the term efficiency as used in such claims is clearly directed towards light emitting efficiency, as is defined in the present application. While such definition of "efficiency" as generally used in the present application is thus believed to be clear based on the specification, Claims 9 and 10 have been amended to clarify that the term efficiency as used therein also relates to light emitting efficiency, consistent with the other claims and specification. Such amendment does not raise any new issues, as such term is already present and thus should have been considered with respect to claims 1-8. Accordingly, entry of such amendment after final is respectfully requested, especially as such amendment is in specific response to a new ground of rejection set forth in the final rejection. Reconsideration of this rejection is accordingly respectfully requested.

Claim Rejections - 35 USC § 103

Claims 1, 4, 5, and 8-10 are rejected under 35 USC 103(a) as being unpatentable over Shimizu et al. (US 6,069,440), in view of Hill, Jr. (US 5,790,096), and Xu et al. (US 6,133,692). Claims 2 and 6 are rejected under 35 USC 103(A) as being unpatentable over Shimizu et al. (US 6,069,440), in view of Hill, Jr. (US 5,790,096), and Xu et al. (US 6,133,692) as applied to claims 1 or 5 above, and further in view of Shimoda (US 5,944,829). Claims 3 and 7 are rejected under 35 USC 103(a) as being unpatentable over Shimizu et al. (US 6,069,440), in view of Hill, Jr. (US 5,790,096), and Xu et al. (US 6,133,692) as applied to claims 1 or 5 above, and further in view of Nelson et al. (US 6,311,282 B1). Reconsideration and allowance of the claims is requested for the following reasons.

Applicant's invention as disclosed in the specification and claimed in independent claims 1 and 5 is directed to power saving methods and color displays that save power by providing the display with white light emitting elements that are more efficient than colored light emitting elements in the display, converting at least a portion of a color digital image to a monochrome image and displaying the monochrome portion of the image using only the white light emitting elements of the display. Claim 9 is directed to an OLED device that has a pixel site including a plurality of individually addressable light emitting elements including a light emitting element for emitting white light and one or more light emitting elements for emitting colored light; and the white light emitting element being at least twice as efficient as at least one of the colored light emitting elements. Claim 10 is directed to a method of saving power in an OLED display device that includes providing an OLED display having pixel sites with colored light emitting elements and white light emitting elements, the white light emitting element being at least twice as efficient as at least one of the colored light emitting elements; converting at least a portion of a digital color image signal to a power saving digital image signal using the white light emitting elements; and driving the OLED display with the power saving digital image signal. None of the references, alone or in combination, teach show or suggest a color display device employing in combination colored light emitting elements and white light emitting elements having light emitting efficiencies greater than the colored emitters, where the more efficient white

emitters are selectively employed in the color display in order to save power when employing the OLED device.

Shimizu et al. disclose a white light emitting LED that includes an LED that emits one color of light and a phosphor over the LED that absorbs some of the emitted light and reemits another color of light, such that the combination of directly emitted and reemitted light is white. At Col. 21, lines 3-31, Shimizu et al. disclose a monochrome display having the white light emitting diodes. Also, at Col. 22, lines 13-38, they disclose a color display composed of pixels having red, green, blue and white emitting LEDs. When displaying white light, the white emitting LEDs in the pixels are used (Col. 22, lines 32-35). As noted by the Examiner, Shimizu et al. do not suggest converting a portion of a color digital image signal to a monochrome image. Further, nowhere do Shimizu et al. teach show or suggest selectively employing white light emitting diodes which are more light emitting efficient than a colored light emitter in order to save power.

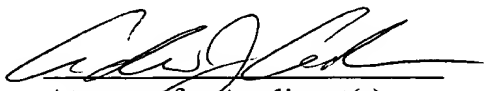
The Examiner correctly points out that Hill Jr. discloses converting a color digital image to a monochrome image, but Hill Jr. only disclose using the monochrome image to drive a monochrome display in order to accommodate the limitations of the monochrome display, not to drive white light emitting elements of a color display in order to save power. Xu et al. disclose a white light emitting OLED device, but again there is no teaching no suggestion to selectively use such white light emitting devices in combination with other colored light emitting elements in a color display in order to save power. Thus, even if the teachings of Shimizu et al., Hill Jr. and Xu et al. were to be combined as suggested by the Examiner, there is no suggestion in such references to combine such teachings in a manner which would result in Applicant's invention.

The only combination which would appear to be reasonably suggested by the teachings of Shimizu et al., Hill Jr. and Xu et al. would be to use the monochrome image produced by Hill Jr. to drive a monochrome display of the type disclosed by Shimizu et al. using the white light emitting diodes of Xu et al. Again, this would not result in Applicant's invention because there is no teaching in any of the references of providing a color display having white light emitting elements that are more efficient than the color elements of the

display, and selectively driving the white light emitting elements of a color display with a color signal that has been converted to save power. It is noted that the Examiner has apparently relied upon the differential sensitivity of the eye as a basis for meeting the claimed requirement that a more efficient white light emitting element be employed in combination with colored light emitters. As explained above, however, the term efficiency as employed in the present claimed invention is specifically employed in reference to light emitting efficiency, not sensitivity of the eye. Accordingly, the Examiner's comments do not appear to be relevant. Further, as explained above there is in any event no teaching in the applied references to selectively employ a more efficient white emitter in a color display in accordance with the invention in order to save power consumption. It is believed therefore that Applicant's claims 1, 4, 5 and 8-10 are allowable over the combined teachings of Shimizu et al., Hill Jr. and Xu et al. The remaining dependent claims depend from claim 1 or 5, and are believed to be patentable for at least the same reasons, as neither of the additional applied references of Shimoda and Nelson overcome the basic deficiencies of the base rejection.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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